

REMARKS

This responds to the non-final Office Action dated 7 August 2008. Claims 1-10, 16-30, 32-39, 42, 43, 49, 50, 52-55 and 59-61 have been amended. Support for these amendments can be found variously throughout the specification; including, for example, Figures 6A-6D and the description of those figures throughout the present application. No new matter has been added. Accordingly, claims 1-62 are presently pending in the application, each of which Applicant believes is in condition for allowance. Applicant respectfully requests reconsideration of the application in light of the above amendments and the following remarks.

For simplicity and clarity purposes in responding to the Office Action, Applicant's remarks are primarily focused on the rejections applied to the independent claims (*i.e.*, claims 1, 21, 33, 38, 43, 50, 55, and 60) as outlined in the Office Action with the understanding that the dependent claims are patentable for at least the same reasons (and in most cases other reasons) that the independent claims are patentable. Applicant expressly reserves the right to argue the patentability of the dependent claims separately in any future proceedings.

Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claims 33-37 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully traverses this rejection. However, in an effort to expedite allowance of the present application, Applicant has removed the term "means" from claims 33-37.

Claim Rejections – 35 U.S.C. § 103

In the Action, the Examiner rejected claims 1, 21, 33-35, 43-46, 60 and 61 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,681,334 to Evans et al. in view of U.S. Patent No. 5,662,681 to Nash et al.. The Examiner rejected claims 2-8, 10-18, 20, 22-31, 47 and 48 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Evans in view of Nash and further in view of U.S. Patent No. 5,702,397 to Goble et al. The Examiner rejected claims 6 and 9 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Evans in view of Nash and Goble, and further in view of U.S. Published Application No. 2004/0147958 to Lam et al. The Examiner rejected claims 38-41 and 55 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Evans in view of Nash and Goble. The Examiner rejected claims 19, 32, 37, 42, 49-52, 54, 56-59 and 62 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Evans in view of Nash and Goble, and further in view of U.S. Patent No. 6,293,961 to Schwartz et al. The Examiner also rejected claim 53 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Evans in view of Nash, Goble and Schwartz, and further in view of U.S. Patent No. 6,159,234 to Bonutti et al. Applicant respectfully traverses these rejections.

Independent claims 1, 21, 33, 38, 43, 50, 55 and 60 have been amended to recite either “a suture locking mechanism including a wedge shaped portion” (claim 1), “a wedge shaped locking element” (claims 21, 33, 38, 43 and 60), “an inner housing assembly having a wedge shaped portion” (claim 50), or “a locking device having a wedge shaped portion” (claim 55). Applicant submits that the prior art of record fails to disclose or render obvious the “wedge shaped” features as claimed for reasons enumerated below.

Evans is directed to an apparatus 20 used to apply a collagen 22 to inhibit the flow of blood through a percutaneous puncture 10. The apparatus includes a suture 24A-C, a washer or disk 46, a housing 26, and a tamping member 28 for placement of the collagen 22 at the puncture 10. The collagen 22 is expelled from the housing 26 with the tamping member 28 at the puncture 10. The collagen 22 can be held in place at the puncture 10 with the disk 46, wherein the sutures 24A, 24B are frictionally held in a passageway 48 of the disk 46.

Evans clearly fails to disclose or suggest both “a housing; [and] a suture locking mechanism residing in the housing,” as required by claim 1. Further, the disk 46 disclosed by Evan does not include a “wedge shaped portion.” Therefore, Evans fails to disclose or render obvious every limitation of claim 1.

Evans also fails to disclose or suggest “a housing; and at least one wedge shaped locking element positioned in the housing,” as required by claim 21, “a housing and a wedge shaped locking element positioned in the housing,” as required by claims 33, 38, 43 and 60, “an external housing; [and] an inner housing assembly . . . having a wedge shaped portion,” as required by claim 50, or “a housing; [and] a locking device having a wedge shaped portion,” as required by claim 55, for at least the same reasons discussed above related to claim 1.

Nash, Goble and Schwartz, alone or in combination, fail to remedy the deficiencies of Evans as they relate to independent claims 1, 21, 33, 38, 43, 50, 55 and 60. The Examiner uses Nash merely for the disclosure of an anchor in a percutaneous puncture closure device. Goble is applied by the Examiner for its teaching of a cylinder 107 that is rotatable within a longitudinal cavity 103 of a locking anchor 100. The cylinder 107 engages a suture 27 to limit movement of the suture 27 through the anchor 100. However, there is no disclosure or suggestion by Goble of

the cylinder 107 have a "wedge shaped portion," or the anchor 100 having "a wedge shaped locking element."

The Examiner applies Schwartz in combination with Evans, Nash and Goble as the basis for rejecting independent claim 50. Schwartz teaches a suture locking device that includes a push lock ring 60 having a conical hole into which an anchor 20 having a lip 34 is inserted. *See* Figures 7 and 8. The lip 34 locks against edge 62 of the lock ring 60 to hold first and second rear portions 26, 28 of the anchor in engagement thereby locking the suture 40 between the first and second rear portions 26, 28. The pathway for the suture is defined solely by the first and second rear portions. The suture does not engage any portion of the push lock ring 60 and does not pass in a space defined between the push lock ring 60 and the anchor 20. Therefore, Schwartz fails to disclose "the suture is relatively moveable relative to the suture locking assembly in a suture space that is defined between the at least one lower surface of the external housing and the mating surface of the inner locking housing," as required by claim 50.

For similar reasons as those discussed related to claim 50, Schwartz also fails to disclose "that the suture can pass through the housing in a space defined at least in part between the housing and wedge shaped portion of the suture locking mechanism," as required by claim 1, a path or space for passage of the suture that is "defined at least in part between the housing and the locking element," as required by claims 21, 33, 38 and 43, "the locking device having a plurality of mating surfaces defined by the housing and the locking device, . . . the plurality of mating surfaces provide a gap through which the suture can move relative to the suture locking assembly," as required by claim 55, or "a compressive force between the sidewall and the

locking element causes at least one grasping surface on the at least one sidewall to grasp a suture,” as required by claim 60.

Lam and Bonutti fail to remedy the deficiencies of Evans, Nash, Goble and Schwartz as they relate to any of independent claims 1, 21, 33, 38, 43, 50, 55 and 60. Lam is cited by the Examiner only for its teaching of a suture winding device 60' that includes a pair of rods 70a, 70b that are rotated to wind up a suture 39. Bonutti discloses with reference to Figure 20 two pairs of cylinders 360, 362 and 364, 366 that are positioned within a rectangular housing 358. A separate suture portion 66, 68 is wound around each pair of cylinders. The housing 358 is movable relative to the cylinders and is plastically deformed to grip the sutures between the cylinders and the deformed portion of the housing. The cylindrical shape of the cylinders 360, 362 and 364, 366 is necessary to provide smooth, continuous bends in the suture so that suture is free of stress inducing discontinuities. *See* col. 21, lines 6-19 and col. 22, lines 4-9. Lam and Bonutti each fail to disclose or suggest the “wedge shaped” features required by the independent claims.

Accordingly, for each the above reasons, Applicant respectfully requests that the rejection of independent claims 1, 21, 33, 38, 43, 50, 55, and 60 under 35 U.S.C. § 103 be withdrawn, and these claims be allowed. Moreover, aside from the novel limitations recited therein, claims 2-5, 7, 8, 10-17, 19, 20, 22-32, 34-42, 44-49, 51, 52, 54, 59, and 60-62 are also allowable at least by virtue of their dependency upon allowable base claims 1, 21, 33, 38, 43, 50, 55, and 60. Applicant respectfully requests, therefore, that the rejection of claims 2-5, 7, 8, 10-17, 19, 20, 22-32, 34-42, 44-49, 51, 52, 54, 59, and 60-62 under 35 U.S.C. § 103(a) be withdrawn, and these claims be allowed.

Conclusion

For at least the foregoing reasons, Applicant believes that each of the presently pending claims in this application is in immediate condition for allowance. Accordingly, Applicant respectfully requests a favorable action on the merits. If the Examiner has any further comments or suggestions, Applicant invites the Examiner to telephone the undersigned attorney to expedite the handling of this matter.

Applicant expressly disclaims all arguments, representations, and/or amendments presented or contained in any other patent or patent application, including any patents or patent applications claimed for priority purposes by the present application or any patents or patent applications that claim priority to this patent application. Moreover, all arguments, representations, and/or amendments presented or contained in the present patent application are only applicable to the present patent application and should not be considered when evaluating any other patent or patent application.

Respectfully submitted,

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